

REMARKS

Claims 2-6 and 8-25 pending in the present application. Claims 2-6 and 33-35 stand rejected, while claims 8-32 are withdrawn. Applicant respectfully requests consideration and allowance of the claims in light of the following remarks.

Claim Rejections Under 35 U.S.C. § 103

Claims 2-6 and 33-35 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Nishiyama et al. (U.S. Patent Application No. 2002/0140888, hereinafter "Nishiyama") in view of Jones et al. (U.S. Patent No. 6,124,907, hereinafter "Jones") and further in view of Gunning, III et al. (U.S. Patent No. 5,638,197, hereinafter "Gunning") for the reasons stated on pages 3-6 of the present Office action. Applicants respectfully traverse for at least the reasons stated below.

Although the Examiner alleges that the combination of Nishiyama, Jones and Gunning, III, read as broadly as permissible, reads on claims 2-6 and 33-35, it is respectfully submitted that independent claims 5 and 6 clearly define structure which is not taught or suggested in either of the references of record, either alone or in combination.

The Examiner states that Nishiyama does not teach or suggest a retardation layer having a function of a biaxial film interposed between the first and second transparent substrates and compensating phase difference of light that passes through the liquid crystal layer wherein the retardation layer is disposed directly on the color filter layer, as in claim 5. Further, the Examiner states that Nishiyama does not teach or suggest a retardation layer having a function of a biaxial film interposed between the first and second transparent substrates and compensating phase difference of light that passes through the liquid crystal layer and wherein the retardation layer is disposed directly on the protection layer, as in claim 6.

The Examiner alleges on pages 3 and 5 of the present Office action that Jones discloses in column 9, lines 62-65 and column 12, lines 36-52 and FIGS. 1 and 9 a liquid

crystal display apparatus comprising a retardation layer (element 17) having a function of a biaxial film interposed between the first and second transparent substrate.

As discussed in response to a previous Office action, it is respectfully noted that Jones discloses a **polarizer** (17) intermediate an alignment layer (13) and a pixel electrode (15), while Gunning, III et al. disclose an O-plate intermediate a polarizer layer (300) and an analyzer layer (305) in claim 7 and FIG. 3. In particular, FIG. 3 of Gunning, III et al. disclose a compensator layer intermediate the polarizer (300) and glass plate (340) and intermediate the analyzer (305) and another glass plate (345). Neither Jones et al., nor Gunning et al. teach or suggest, either alone or in combination, a retardation layer compensating **phase** difference of light that passes through the liquid crystal layer.

As discussed in response to a previous Office action, it is respectfully submitted that a “polarizer” is not a “retardation layer” as claimed in amended claims 5 and 6. Those skilled in the art recognize that a “polarizer” is an optical component that is used to convert randomly polarized (unpolarized) light into a polarized one. Here, only light that is polarized in one specific orientation is transmitted by the polarizing component (e.g., polarizer) and light polarized in the opposite (perpendicular) sense is absorbed. In other words, a polarizer allows only the passage of light waves that are vibrating in a particular plane. A polarizer does not compensate **phase** difference of light. Whereas the retardation film of the present invention applies different phases to the ordinary light and the extraordinary light. (Page 1, lines 23 and 24 of the specification as originally filed).

The Examiner states that Jones discloses in FIGS. 9 and 10 and column 12, lines 36-52 a polarizer/retarder structure. Jones does describe a polarizer structure including a transparent substrate 101, an alignment layer 102 formed on the substrate 101, a substantially continuous reactive layer 103 formed on the alignment layer 102, a retarder alignment layer 106 formed on the continuous reactive layer 103 and a layer of reactive liquid crystalline 104 formed on the retarder alignment layer 106. (See FIGS. 8-10 and column 12, line 12 through column 13, line 13). The layer of reactive liquid crystalline 104 does result in a retardation or optical compensation layer.

However, the polarizer structure shown and described in the abovementioned sections of Jones is not a replacement or an equivalent substitute for the polarizer 17, but rather is a completely separate structure including its own substrates 101, retardation layers 104, alignment layers 102 and 106, polarizers 103, etc. If such a structure were to be substituted for polarizer 17 the resulting structure would include multiple, and redundant, alignment layers and multiple, and redundant, substrates. Therefore, it is respectfully submitted that there is no motivation or suggestion for the modification as suggested by the Examiner. Moreover, such a structure would possibly render the resulting device inoperable and at the very least would unnecessarily, and undesirably, increase the thickness of the resulting display device and unnecessarily complicate the manufacture of such a display device.

Therefore, the polarizer 17 of Jones still does not teach, suggest or disclose a retardation layer having a function of a biaxial film interposed between the first and second transparent substrates and compensating phase difference of light that passes through the liquid crystal layer as claimed in independent claims 5 and 6.

Neither Nishiyama et al., Jones et al. nor Gunning, III et al., either alone or in combination, disclose a retardation layer having a function of a biaxial film interposed between the first and second transparent substrates and compensating phase difference of light that passes through the liquid crystal layer and wherein the retardation layer is disposed directly on the color filter layer, as recited in claim 5, nor a retardation layer having a function of a biaxial film interposed between the first and second transparent substrates and compensating phase difference of light that passes through the liquid crystal layer wherein the retardation layer is disposed directly on the protection layer, as in recited claim 6.

Thus, it is respectfully submitted that independent claims 5 and 6, including claims depending therefrom, i.e., claims 2-4 and 33-35, respectively, are patentable over Nishiyama et al. in view of Jones et al. and in further view of Gunning, III et al.

Accordingly, it is respectfully requested that the rejection to claims 1-7 under § 103(a) be withdrawn.

Conclusion

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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